

**Claims**

8. A method for treating water, sediment, or soil containing pollutants by the step of contacting the pollutant containing water, sediment, fractured rock, or soil with a multi-functional sequestration agent comprising bauxite in its relatively natural form.
9. The method according to claim 8, wherein said multi-functional sequestration agent is formed into a permeable vertical barrier.
10. The method according to claim 8, wherein said multi-functional sequestration agent is formed into a permeable horizontal barrier or cap.
11. The method according to claim 8, wherein said multi-functional sequestration agent is mixed with the environmental media to be cleaned.
12. A method for removing or inactivating microorganisms in an emission or in the environment comprising contacting the microorganism with a mineral selected from bauxite, copper ores, and mixtures thereof.
13. The method according to claims 8 or 12 wherein said bauxite is crushed.
14. The method according to claims 8 or 12 wherein said bauxite is granular.
15. The method according to claims 8 or 12 wherein said bauxite is a powder.
16. The method according to claims 8 or 12 wherein said bauxite is installed as a subsurface mineral ore barrier.
17. The method according to claims 8 or 12 wherein said bauxite is in a permeable barrier.



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18. The method according to claim 17, wherein said permeable barrier is installed in the path of groundwater flow.
19. The method according to claims 8 or 12 wherein said water is groundwater.
20. The method according to claims 8 or 12 wherein said water is surface water.
21. The method according to claims 8 or 12 wherein said contacting is by mixing said bauxite with said water, sediment, fractured rock, or soil.
22. The method according to claim 8, wherein the pollutant is a heavy metal.
23. A sequester for treating water, sediment, fractured rock, or soil containing heavy metals comprising: bauxite in its relatively natural form mixed with said water, sediment, or soil.
24. The sequester according to claim 23, wherein said bauxite comprises granulated or powdered bauxite.
25. A permeable barrier for preventing migration of pollutants comprising:  
a multi-functional sequestration agent comprising bauxite in its relatively natural form.
26. The permeable barrier according to claim 25, wherein said bauxite comprises granulated or powdered bauxite.